



BUSINESS IN MARYLAND

INFORMATION & TECHNOLOGY

WARYLAND
S. TIMESS



PROFILE

Maryland's information and technology industry thrives on a concentrated and collaborative environment spurring innovative communities in cybersecurity, IT, interactive technologies and communications. A strong network of research and education resources and a highly educated and talented workforce stimulate myriad opportunities for new and expanding businesses. In 2009, Maryland's 10,000 information and technology businesses were awarded \$7.1 billion in federal contracts and generated \$24.6 billion making it one of the nation's leaders and a major economic engine for the state.





WORKFORCE

1st in concentration
of doctoral scientists
and engineers

TOP 10 INFO & TECHNOLOGY EMPLOYERS

Northrop Grumman	11,500
Lockheed Martin	9,250
SAIC	4,500
JHU Applied Physics Laboratory	4,400
CSC	3,960
BAE Systems	2,900
Booz Allen Hamilton	2,390
Bechtel	2,200
IBM	2,100
General Dynamics	1,450

Excludes federal and military facilities

COMPUTER SCIENCE EMPLOYMENT

MARYLAND
3.8 PER 100

UNITED STATES
2.4 PER 100

Scientists	33,060
Software engineers	23,810
Support specialists	4,330
Systems analysts	12,520
Mathematicians	3,220
TOTAL	76,940

MARYLAND'S WORKFORCE PIPELINE

Maryland's workforce pipeline is fueled by a concentration of workers in computer and mathematical related occupations. Among states Maryland is:

- 1st in computer specialists
- 2nd in network systems and data communications analysts
- 3rd in operations research analysts
- 4th in database administrators
- 5th in computer software engineers, systems software



Ten percent of all jobs in Maryland are technology related making it one of the highest concentrations of technology jobs in the country.



Created by Sid Meier, the “Father of Computer Gaming,” and located in Baltimore County’s interactive technology cluster, Firaxis Games is a world renowned game development studio and industry leader. Founded in 1996, estimated annual sales are \$5.5 million.

INNOVATORS

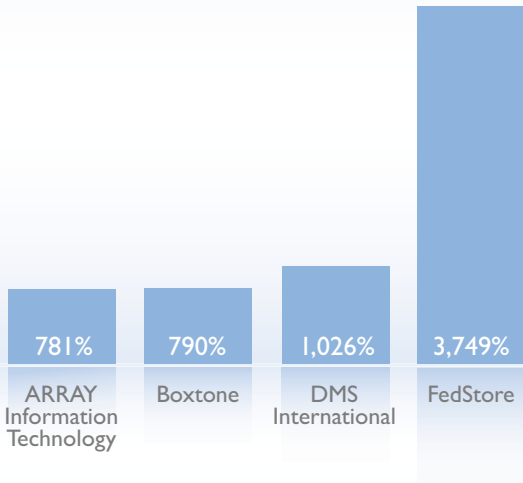
Maryland is a powerhouse of smart people, big ideas and innovative thinkers. The state’s community of more than 100 modeling/simulation and interactive technology companies includes the largest regional cluster of medical modeling/simulation and serious gaming companies.

- Big Huge Games
- Immersion Medical
- Breakaway
- Juxtopia
- Firaxis Games
- ZeniMax Media

FASTEST GROWING

A leader in the technology and science fields, Maryland is a magnet for emerging and innovative companies. Established industry leaders are joined by some of the nation's fastest growing entrepreneurs specializing in software design, fiber optics, IT services and training and network and telecommunications engineering.

INC. 500'S FASTEST GROWING MD COMPANIES



Maryland Companies – 3 Year Revenue Growth 2005-2008



Sourcefire, founded in 2001 by Martin Roesch, author of Snort®, is the world's most popular intrusion detection and prevention technology. Sourcefire's technologies are used by every military branch and half the Fortune 500 companies. Sourcefire's federal business almost tripled from 2007 to 2008.



EDUCATION

Best public school
system in the nation
2nd straight year

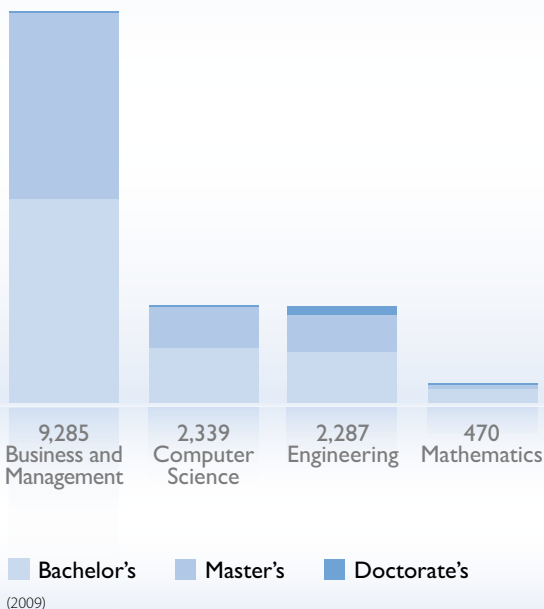
RESEARCH AND EDUCATION

World-renowned colleges and universities with outstanding computer science and engineering programs and more than 50 federal research agencies create a highly educated and innovative workforce pipeline. Maryland ranks second in federal research and development with \$11.6 billion.

- **Morgan State University** grants more bachelor's degrees to African Americans than any other university in Maryland, and the third highest number of bachelor's in engineering to African Americans of any institution in the nation.
- **Johns Hopkins University** ranks first among academic institutions in the nation in research and development expenditures, totaling \$1.68 billion in FY 2008 and leads research in networking, wireless, systems evaluation, medical privacy and bio-terrorism.
- **University of Maryland College Park** ranks third globally in nanotechnology-specific research and is among the top ten universities in preparing future cyber security professionals and produces the largest number of STEM graduates in the state.
- **University of Maryland Baltimore County** ranks first as the up and coming university in the nation and is home to the Center for Information Security and Assurance. Studies are provided in cryptology, network security, electronic commerce, and intrusion detection.



DEGREES AWARDED BY MD COLLEGES & UNIVERSITIES



LOCATION

Access to 400
research centers and 50
federal agencies

LEADING R&D FACILITIES

In combination with 12 major military installations, including **Ft. Meade**, **Aberdeen Proving Ground** and **Ft. Detrick**, federal agencies are a significant economic anchor and supply Maryland with an unparalleled landscape for information and technology research and development. Agencies shaping the backbone of Maryland's elite cybersecurity network include:

- Defense Information Systems Agency
- Intelligence Advanced Research Projects Activity
- National Institute of Standards and Technology
- National Security Agency

DID YOU KNOW?



The University of Maryland's Joint Quantum Institute successfully teleported data from one atom to another and was named one of the best 50 inventions of 2009 by *Time* magazine



Six Maryland universities are certified by **NSA** as Centers of Academic Excellence



More than 20 Maryland colleges and universities offer degrees in computer science



University of Maryland Baltimore County has the 2nd highest percentage of graduates in STEM fields of any university in the state



One-third of Maryland's 2008 high school graduates completed coursework to prepare for enrollment in college level science, technology, engineering and mathematics (STEM) courses



Maryland born physicist **John William Mauchly**, along with **J. Presper Eckert**, designed **ENIAC**, the first general purpose electronic digital computer, as well as EDVAC, BINAC and UNIVAC I, the first commercial computer made in the U.S.



In 2009 Maryland had the 4th highest concentration of tech industry workers of all cyberstates with 83 out of every 1,000 private sector workers employed by the high-tech industry



15 percent of Maryland employment is in high tech establishments



Maryland is 2nd in the nation in the percentage of professional and technical workers





INFRASTRUCTURE

BWI

Best mid-size airport
in the world

INFRASTRUCTURE

Centrally located along the U.S. east coast, offering proximity to New York, Philadelphia and Washington, Maryland's robust transportation infrastructure provides immediate access to major distribution and travel routes.

- Three international airports within an hour's drive
 - Baltimore/Washington International Thurgood Marshall Airport
 - Dulles International Airport
 - Reagan National Airport
- Two Class I freight rail carriers, CSX and Norfolk Southern, and five short lines
- A deep-water, inland port that handles nearly 50 million tons of cargo annually
- Six interstate highways that link the state to every major U.S. market
- Overnight trucking access to one-third of the U.S. population



STABILITY

AAA Bond Rating
certified by Moody's, Fitch
and Standard & Poor's

RESOURCES

Businesses benefit from numerous statewide technology councils and more than two dozen incubators, including the nation's first homeland and national security focused accelerator, the **Chesapeake Innovation Center**. The network of support promotes advanced technology collaboration, innovation and commercialization via shared resources, technology transfer, funding options, advocacy initiatives and opportunities for continued education and training.



SELECT TECHNOLOGY ORGANIZATIONS AND INCUBATORS

- Chesapeake Innovation Center
- Chesapeake Regional Tech Council
- Greater Baltimore Technology Council
- Maryland Technology Development Corporation
- Neotech Incubator
- Northeastern Maryland Technology Council
- Patuxent Partnership
- Technology Council of Maryland



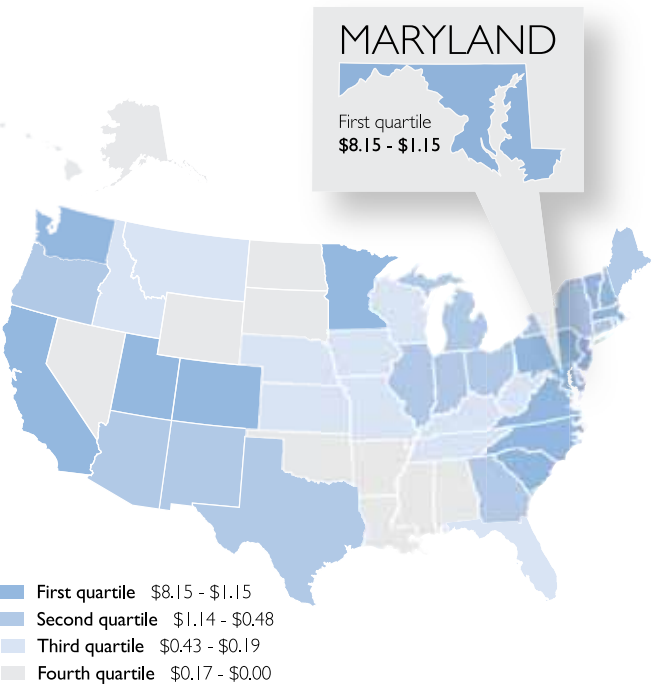
SELECT TECHNOLOGY TRANSFER PROGRAMS

Maryland Technology Transfer and Commercialization Fund – Provides funding for Maryland technology companies located in approved incubators in the State of Maryland or who wish to develop technology-based products and/or services in collaboration with the universities in Maryland and/or federal labs. Funds up to \$75,000 are available.

Maryland Industrial Partnerships – Accelerates the commercialization of technology in Maryland by jointly funding collaborative R&D projects between companies and University System of Maryland faculty. Maximum award for any single project is \$100,000 per year and \$90,000 for start-up firms.

Rural Business Innovation Initiative – RBI2 is designed to enhance commercialization activities and provide technical and business assistance to small technology-based companies in the rural areas of Maryland, as defined by the Rural Maryland Council. Awards are capped at \$7,500.

TOP 25% VENTURE CAPITAL INVESTMENT IN U.S.



Venture capital disbursed per \$1000 of Gross Domestic Product

Sources: PricewaterhouseCoopers, Venture Economics, and National Venture Capital Association, MoneyTree Survey™, special tabulations; and Bureau of Economic Analysis, Gross Domestic Product data. 2008

INCENTIVES

Maryland has a wide array of incentives, including workforce training grants, loans and twenty-eight Enterprise Zones that provide income and real property tax credits in return for job creation and investments. Select funding, technology transfer and assistance programs include:

Maryland Venture Fund – A state-funded seed and early-stage equity fund that makes direct investments in technology and indirect investments in venture capital funds. Approximately 60 percent of the Fund is invested in technology companies in the areas of software, communications, and IT security.

Challenge Investment Program – Provides financing for seed-stage companies to cover a portion of the initial costs associated with bringing new products to market. Maximum investment of \$150,000.

- Less than 25 employees and annual sales of less than \$1 million
- Minimum 1:1 co-investor match required
- Located in Maryland and remain in the state for 3 years

Enterprise Investment Fund Program – Makes direct equity investments in emerging technology companies. Investment ranges from \$150,000 to \$500,000.

- Principal place of business in Maryland for 5 years
- Minimum 3:1 co-investor match required

Research and Development Tax Credit – Businesses with qualified research and development expenses in Maryland are entitled to a tax credit if eligible and certified by the Maryland Department of Business and Economic Development.

- **Basic R&D Tax Credit** – 3 percent of eligible R&D expenses in excess of the firm's average R&D expenses over the last four years. If total credit claimed exceeds \$3 million, the tax credit is prorated.
- **Growth R&D Tax Credit** – 10 percent of eligible R&D expenses that exceed the average R&D expenses over the last four years. If total credit claimed exceeds \$3 million, the Growth R&D tax credit is prorated.



MARYLAND DEPARTMENT OF BUSINESS & ECONOMIC DEVELOPMENT

Looking to start, expand or relocate a business? Our staff helps business owners of all sizes and sectors leverage resources, forge relationships and access industry specialists. The Department is your resource for economic, labor and license information and financial incentives.

Services include:

- Building and site location assistance
- Finance programs, tax credits and training grants
- Business advocacy and consulting
- Technology transfer
- Foreign direct investment
- Export consulting and marketing
- Tradeshow and conference partnership

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